Fig 1a.

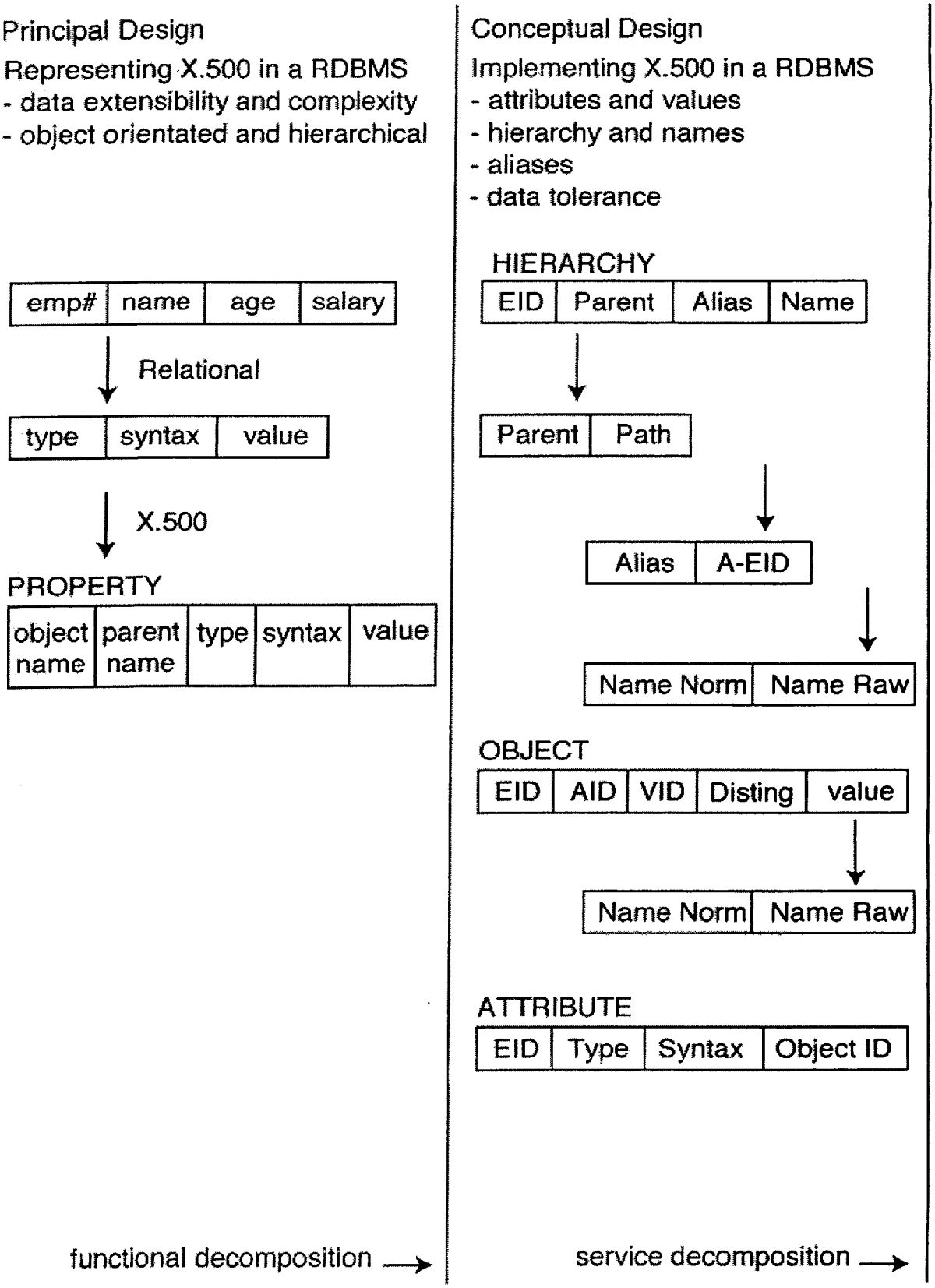

Principal Design
Representing X.500 in a RDBMS
- data extensibility and complexity
- object orientated and hierarchical
emp#
name
age
salary
Relational
type
syntax
value
X.500
PROPERTY
object name
parent name
type
syntax
value
Conceptual Design
Implementing X.500 in a RDBMS
- attributes and values
- hierarchy and names
- aliases
- data tolerance
HIERARCHY
EID
Parent
Alias
Name
Parent
Path
Alias
A-EID
Name Norm
Name Raw
OBJECT
EID
AID
VID
Disting
value
Name Norm
Name Raw
ATTRIBUTE
EID
Type
Syntax
Object ID
functional decomposition
service decomposition

Fig 1b.

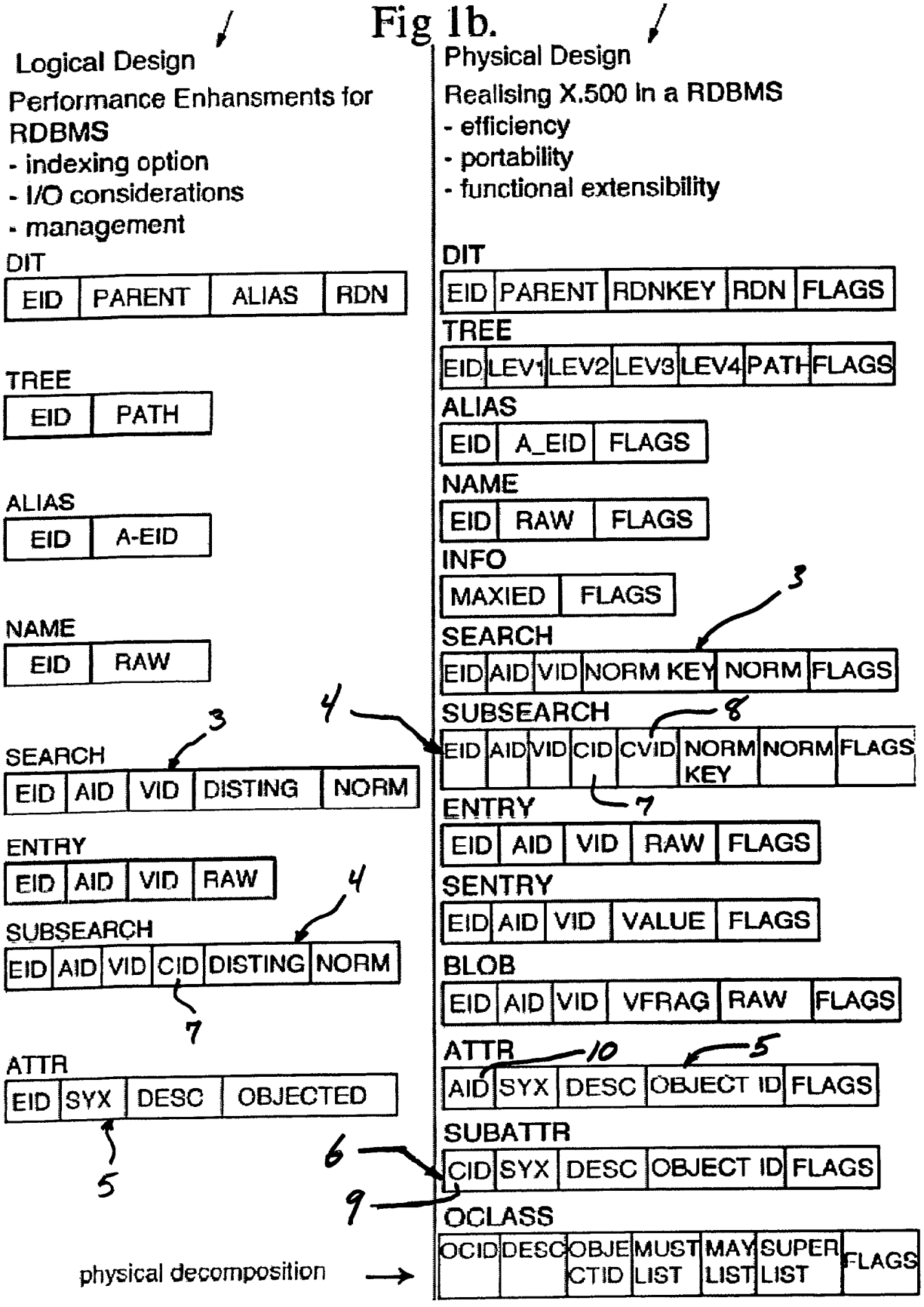

Logical Design
Performance Enhansments for RDBMS
- indexing option
- I/O considerations
- management
DIT
EID PARENT ALIAS RDN
TREE
EID PATH
ALIAS
EID A-EID
NAME
EID RAW
SEARCH
EID AID VID DISTING NORM
ENTRY
EID AID VID RAW
SUBSEARCH
EID AID VID CID DISTING NORM
ATTR
EID SYX DESC OBJECTED
physical decomposition
Physical Design
Realising X.500 in a RDBMS
- efficiency
- portability
- functional extensibility
DIT
EID PARENT RDNKEY RDN FLAGS
TREE
EID LEV1 LEV2 LEV3 LEV4 PATH FLAGS
ALIAS
EID A_EID FLAGS
NAME
EID RAW FLAGS
INFO
MAXIED FLAGS
SEARCH
EID AID VID NORM KEY NORM FLAGS
SUBSEARCH
EID AID VID CID CVID NORM KEY NORM FLAGS
ENTRY
EID AID VID RAW FLAGS
SENTRY
EID AID VID VALUE FLAGS
BLOB
EID AID VID VFRAG RAW FLAGS
ATTR
AID SYX DESC OBJECT ID FLAGS
SUBATTR
CID SYX DESC OBJECT ID FLAGS
OCLASS
OCID DESC OBJECTID MUST LIST MAY LIST SUPER LIST FLAGS

Fig 2.

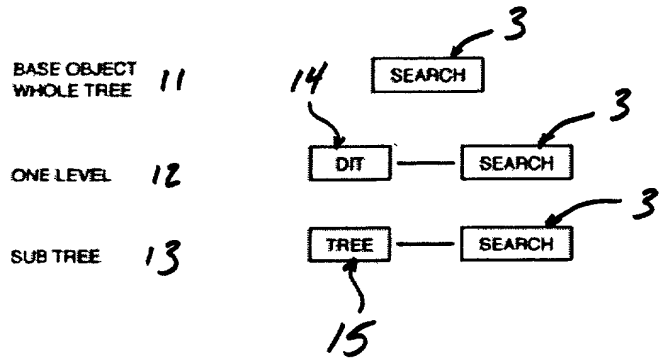
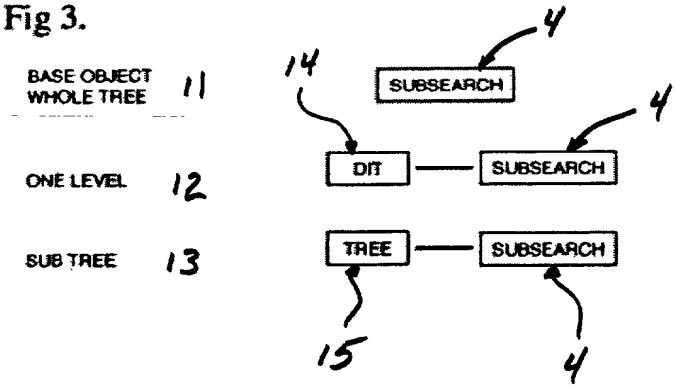

BASE OBJECT WHOLE TREE 11
ONE LEVEL 12
SUB TREE 13
SEARCH
DIT
SEARCH
TREE
SEARCH
3
3
3
14
15

Fig 3.


BASE OBJECT WHOLE TREE 11
ONE LEVEL 12
SUB TREE 13
SUBSEARCH
DIT
SUBSEARCH
TREE
SUBSEARCH
4
4
4
14
15

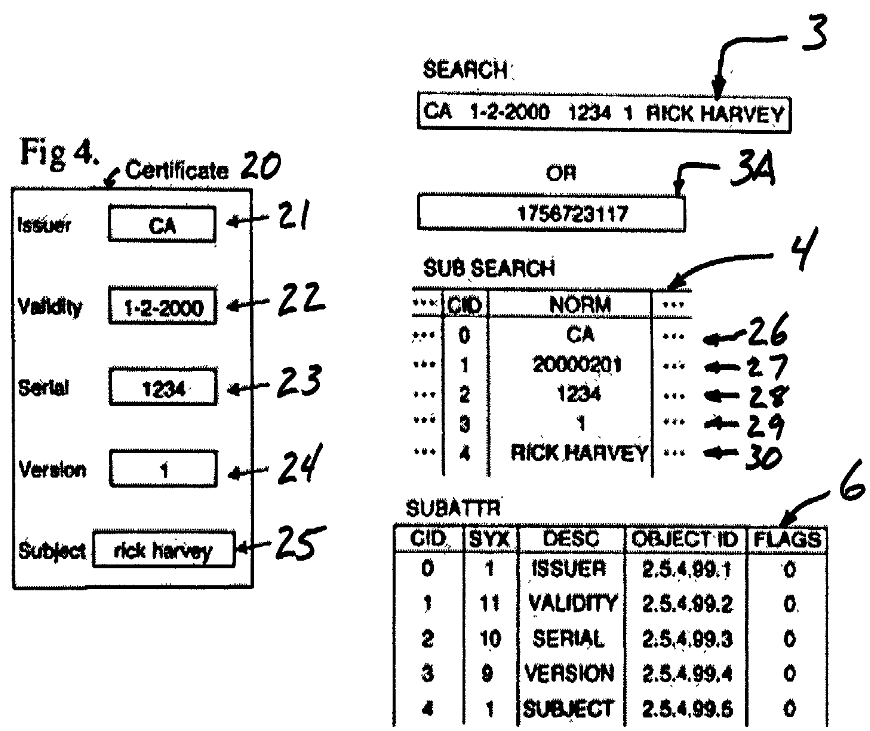
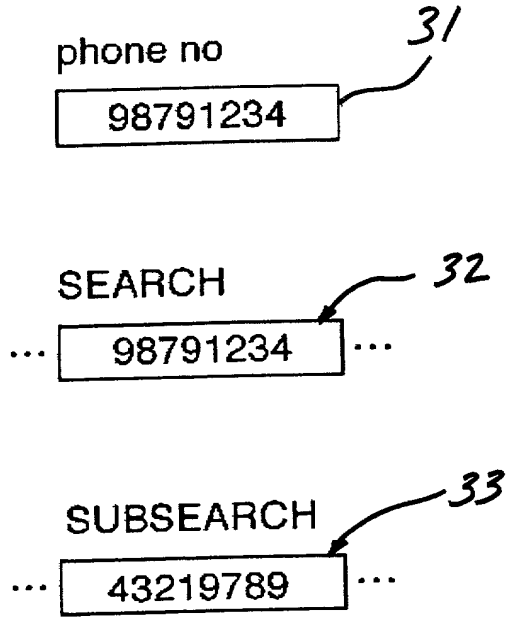

Certificate 20
Issuer
CA
21
Validity
1-2-2000
22
Serial
1234
23
Version
1
24
Subject
rick harvey
25
SEARCH:
CA 1-2-2000 1234 1 RICK HARVEY
3
OR
1756723117
3A
SUB SEARCH
4
... CID NORM ...
... 0 CA ... 26
... 1 20000201 ... 27
... 2 1234 ... 28
... 3 1 ... 29
... 4 RICK HARVEY ... 30
SUBATTR
6
CID SYX DESC OBJECT ID FLAGS
0 1 ISSUER 2.5.4.99.1 0
1 11 VALIDITY 2.5.4.99.2 0
2 10 SERIAL 2.5.4.99.3 0
3 9 VERSION 2.5.4.99.4 0
4 1 SUBJECT 2.5.4.99.5 0

Fig 4.

Fig 5.


phone no
98791234
31
SEARCH
98791234
32
SUBSEARCH
43219789
33